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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE.

OCTOBER 7, 1916.

Reports for week ending Sept. 30, 1916.

Akron.

The winter wheat and rye on the rotations and variety tests has been sown during the past ten days. Very little, except that on summer fallow, will germinate until we have some precipitation. The precipitation during the past month has been only .43 inch and the ground is very dry. Farmers report considerable early sown wheat dying. Wheat on early summer breaking and very early fall plowing is still in fair condition.

Maximum temperature for the week 85; minimum 30. Precipitation .04".

Amarillo, Reports for weeks ending 23 and 30th.

Fair weather with moderate winds prevailed during the former week. Since the cold spell about the middle of the month crops appear to have made very little headway toward maturity. Milo in the Spacing Experiment plats was headed and counts made on stand, heading, suckers, etc. Soil sampling of these plats also was completed. Thistles on the stubble plats were mowed, raked up and burned.

For week ending Sept. 23, maximum temperature 86 on the 20th., minimum 49 on the 18th. Hourly wind velocity 6.1 miles. Precipitation .08 inch. Evaporation 1.518 inches.

Fair and quite windy weather has been the order this past week, which was ushered in with a severe electric storm accompanied with hail on the night of the 23rd. The hail did considerable damage to the row crops - stripping the leaves badly. Corn and milo on the D.L.A. plats were harvested during the week. On the corn the ears were making no progress in maturing and it is doubtful that they will be worth while shucking. The milo was too short for good work in binding. The kafir still stands green giving poor promise of ripening before frost. Much of the late growth is still in the flower.

Messrs. Ross and Cron of the station have been detailed by the Department, through the Office of Exhibits, for duty at the Farming Congress held this year at El Paso along the middle of October. Homer Martin is closing up Water Requirement work here for the season preparatory to leaving for the West next week where he will travel with Dr. Shantz in New Mexico and Arizona before going to Bard, California, to start up Water Requirement work at that point.

For the week ending Sept. 30, maximum temperature was 86 on the 23rd and 26th., minimum 37 on the 29th. Hourly wind 9.2 miles. Precipitation .86 inch and evaporation 1.843 inches.

Weather summary for September:

Max. temp. 92, Avg. Max. 81.
Min. " 37, " Min. 54. Mean for the month 68(3 degrees below normal).
Avg. hourly wind velocity 8.2 miles.
Precipitation 2.16 inches. (about normal).
Evaporation 6' tank 7.665 in. 8' tank 7.366 in.(about normal).

A precipitation for 12.85 inches to date (Oct. 1st) is 5 inches below normal and is nearly 11 inches less than fell last year up to this time. Evaporation this season was over 13.5 inches in excess of that of last year and about 4.5 inches above normal. The wind also has been considerably above normal this season.

Colby.

Two frosts in succession this week killed all the sorghums still immature. Kafir was in the bloom, mostly, part of the milo was ripe as was most of the feterita. Sudan grass was still very soft and will be fit only for hay. All the crops on the station are being cut as rapidly as possible. The milo and kafir on the D. L. A. plats will be cut Monday.

In spite of the continued dry weather the acreage of winter wheat in this county will be large this coming season. Wheat ground is in demand. Land too is getting the benefit of bumper crops. It has risen in price between two and five dollars per acre since harvest.

Mr. Nichols, a representative of the "Farmer's Mail and Breeze" was a station visitor today.

Maximum temperature 88; minimum 29. Average hourly wind velocity (2') 7.1 miles, (8') 10.0 miles, evaporation 1.420 inches, precipitation .08 inch. Precipitation for September .40 inch.

Dalhart.

All of the fall seeding of the small grains has been completed and several of the milo plats harvested during the past week. Harvesting is rather slow on account of the crops maturing much later than usual. Practically all of the milo and early sorghums have been or will be ripe enough to harvest within the next few days. It will require about two weeks of favorable weather to mature the kafirs and it is doubtful as to whether any of them will fully mature before frost.

Max. temp. for week 87; minimum 34. Precipitation .32 inch.

Edgeley.

The weather throughout the entire week was cool, cloudy and damp the first half, and clear and dry the last three days. A drizzling rain fell on Wednesday.

All of the fall plowing on the D. L. A. plats on the station was completed the first two days of the week. No other work was done on the plats.

Threshing is pretty well cleaned up around here now, although there still remains some flax and stacked grain. More grain was stacked this year than usual. Flax seems to be producing good yields throughout this section.

Max. temperature 77; average for last five days 60.
Min. " 29; " " " " " 32.
Precipitation .23 inch.

Huntley.

During the week corn on the acre plat in Rotation 651 was cut and hogs were secured to harvest the comparative corn plat in Rotation 652.

Soil samples were taken on the M.C. corn and showed the soil to be very dry below the first six inches on all plats but the one in fallow this summer. This plat showed a little moisture in the third foot but none below. Forms are nearly completed for a concrete soil laboratory and drying room.

Temperatures for the week: Max. 80; minimum 26. Precipitation .02 inch.

Garden City.

The cool weather prevailing throughout the week, and the lack of moisture prevented maturity of sorghums. A great deal of the kafir and milo is practically dried up, and is being harvested.

On the night of the 28th., a frost occurred which completely killed sorghum crops in the river bottom, but the damage done on the higher portions of the station farm was light. Only one plat of D. L. A. kafir was killed. This plat was located at the base of a gentle slope. Since the frost the weather has been warm with a strong wind from the southwest.

All of the moisture reduction plats, with the exception of one plat each of milo and kafir and three plats of sumac sorghum, have been harvested and final moisture samples taken.

A rabbit proof fence is now being erected around the D. L. A. project.

Climatic data:

Max. temp. for week	82
Min. " " "	33
Avg.wind vel. 2' ane	8.2 miles.
" " " 8' "	11.3 miles.
Evaporation	1.452"
Precipitation	.23 inch.

Hays.

Weather during the past week has been dry generally and the past two days cool and very windy. A heavy killing frost, the first frost of the season occurred Thursday night. All sorghums are killed by the frost so that it will be necessary to harvest at once. The grain yield will be very light. September 23rd., several plats were cultivated to destroy volunteer grain before seeding winter wheat. On the same date winter rye was seeded for green manure. September 26 poison bran was scattered over certain parts of the project to kill grasshoppers before they have a chance to damage fall seeded grain, or deposit eggs for future generations.

Mr. Kuska from the Colby Station visited our station Monday, and Mr. Clark, Supt. of the Colby Station visited us Wednesday. During the week we had a large number of visitors, mostly from the western part of this state.

The Golden Belt Fair was held on the new fair grounds at Hays Sept. 26th to 29th inclusive. A large attendance was in evidence. The fair was pronounced by all a great success. The Experiment Station prepared and entered for exhibition quite a number of farm products, all projects taking part in putting up the exhibit.

Today,- Sunday,- five auto loads of visitors from LaCross were here visiting the station. Dinner was served them in out station dining hall and afterward they were shown about the station by Superintendent Weeks and Assistants in charge of the different projects.

On account of the extra work on hands getting exhibits ready for Fair, the weekly report for one week ago was not written and sent in.

Lawton.

Cold, windy weather has prevailed during the past week. On the 29th the maximum temperature was only 69 and a min. temp. of 37 and 36 occurred on the 29th and 30th.

A light shower of .13 inch on the night of the 24th enabled us to haul in most of the corn fodder and to do some husking. The kafir corn in field B was topped during the week and the yield will be pretty light. Half of this kafir was planted a little late and the heads did not come out of the boot well. All heads were badly infested with chinch bugs and most of them were quite moldy where the exsertion was so poor.

Cotton opened rapidly during the week and the high winds have blown many of the bolls to the ground. This makes picking unpleasant and results in a dirty sample. The staple on all varieties is very short.

W. Wheat, oats and barley will be seeded on the 2nd in the rate and date of seeding test. The seed bed is dry and the grain probably will not germinate until rain falls.

We are cutting the kafir stalks in Field B with a stalk cutter and plowing them under. This will kill lots of chinch bugs if nothing else.

Mandan.

Winter rye and winter wheat that were planted on the eighteenth are up but no doing much due to dryness of the soil.

Harvesting of corn was completed during the week.

All fall plowing of the plats was completed.

Director Cooper of the North Dakota Experiment Station, and Mr. Clinton, Assistant Chief of the Office of States Relations, visited the station on the 27th.

All threshing for the season is now completed.

Max. temp. 75; minimum 29. Precipitation .29 inch.

Scottsbluff.

We have had one sharp frost, on the 27th, some threatening weather, but no rain. Contrary to expectations, winter wheat on M. C. B., subsoiled, fallow and green-manured plats emerged during the week. Wheat on M. C. A., listed and disked plats have not germinated. All rye is up except on the one disked corn plat.

During September we had but .43 inch of precipitation as compared with 1.19" for the 21 year average.

Mr. G. A. Scott of the Bureau of Animal Industry spent three days at the station and Project in the interest of live-stock work which is soon to be started here.

eridan.

Another week of dry weather has passed and we are no nearer being able to break more land than in August when we had to stop, because of dry weather. There was a snow storm in the mountains the early part of the week., but it did not extend down in the valleys.

The contract on the office building has been completed, and work on the residence is going ahead rapidly.

Part of the second floor of the Implement Shed was put in during the week, and work begun on the horse corral. Teams have been busy on the making of the road from the station to the county road. Grading has been started about some of the buildings, and a general clean-up started around all of them.

A good many cattle are being shipped from this section, and cattle and sheep are being taken from the range to pastures. Threshing is very nearly finished about the country and the second cutting of hay is being put up.

acumcari.

Average hourly wind velocity 5.9 miles. Max. temp. 92 on the 25th and minimum 39 on the 28th. Evaporation for week 1.914 inches, precipitation .09 inch on the 23rd.

The principle work of the week consisted of filling the two station silos. Besides this the third and last pulling of broomcorn was made and all plats cut. Two plats of New Mexico Pinto beans were harvested.

Mr. Henry Steece of the Corn Investigations Office visited the station one day this week.

Mr. Stuart Stirling, who has assisted with soil moisture work and with meteorological work here this season, returned to State College, New Mexico, to take Senior work in the College.

Cotton is opening up rapidly and promises to make a large yield. Cotton seems to be about two weeks early this year and the first picking will soon be made. All other crops are slightly slower than usual, some of them being as much as a month late.

The weather is cooling considerably and all indications are for an early frost. If frost does come within the next 10 days there will be very few of our grain sorghums mature enough to thresh.

One of the silos filled this week is a "Pit" silo and in order to prevent practically all top spoilage we cover over the top with straw and then build a pyramidal top over all this with clay or other dirt. This same method was used with this silo last year and not over 4 inches of top silage was spoiled.

Woodward.

The past week has been devoted to harvesting cowpeas and to threshing the grain sorghums. The yield on the variety sorghums runs from ten to twenty bushels. The yield on the rotation plats will be less, as a rule than on the varieties. All rye and oats planted to prevent blowing are up in good shape and will furnish winter and spring protection from blowing.

The past week has been very windy and cold. One heavy frost occurred on the river bottom about a mile from the station but no killing frost has yet occurred on the station.

Havre.

Maximum temperature for the week 72; minimum 28. Evaporation .491, Precipitation .14 inch. Precipitation for the month of September 1.90" recorded on 7 days. The past week has been quite cloudy with periods of quite windy weather. Corn has matured quite rapidly and the rotations have all been cut. The Northwestern Dent variety test has matured much faster since the first frost than have the other dents that were apparently in the same stage of development when the frost first came. Winter wheat was seeded with the exception of the plats to be seeded on corn ground, during the week.

Mr. S. C. Reddy of the Office of Cereal Investigations visited the station on the 30th. Mr. Mocmaw is here from Moccasin attending to some of the alfalfa work.

Big Springs.

Maximum temperature 94; minimum 38. Wind velocity 7.0 miles per hour. Evaporation 1.95 inches. Precipitation none. The week has been dry, with cool weather prevailing during the latter part of the period. All crops are maturing rapidly and will soon be ripe enough to harvest. The second picking of cotton was made on a number of the plats. The yields so far, will run something over 400 lbs. of unginned cotton to the acre, with the following varieties,- Trice, Mebane, Durango, Half and Half and Rowden. Cotton this year is worth about .12 cts. per pound unginned. We will have another picking of cotton to make in about three weeks on the fall plowed and fall listed plats. The plats plowed and listed in the spring, had to be replanted in June on account of not securing a stand, and the yields of cotton of these plats will be light on account of the boll worm, which destroyed the young bolls in August. Broomcorn was pulled on the C. C. plats during the week. The third cutting of Sudan grass was hauled in and weighed; the average yield for the third cutting of Sudan grass being 3910 lbs. to the acre. This brings the yield from the three cuttings up to 4½ tons per acre for the season. An exhibit of the crops raised this season on the farm, was sent up to the Midland Fair and Fat Stock Show, which was held from the 26th to 30th, inclusive.

Note:

Mr. John S. Cole arrived at Washington under date of September 19th to take up his permanent duties in the Washington office. His headquarters at Denver, Colorado has been discontinued.

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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE.

OCTOBER 14, 1916.

Reports for the week ending October 7, 1916.

Amarillo.

Continued dry weather with high south winds have prevailed this week. The row crop harvest has been in progress and during the coming week will be pretty well completed except for the kafirs and late date of planting crops. If this sort of weather keeps up for another couple of weeks kafir may mature in fair shape after all. A patch of Virginia variety of peanuts was pulled on the station today. These were set well with goobers.

Soil sampling has been the main work conducted on the D. L. A. plats this week. Preparation and shipping of exhibits for the Congress at El Paso and the State Fair at Dallas was completed yesterday.

Maximum temperature for the week was 89 on the 3rd and 4th. Minimum 48 on the 7th. Hourly wind 10.6 miles. Precipitation none.

Colby.

The past week has been unusually hot for this time of the year, windy and dry. None of the fall sown grain is coming up. The milo and kafir on the D. L. A. plats were cut Thursday and Friday. There will be no yield of grain, though there were a few heads of milo ripe.

Weather: Maximum temperature 93; minimum 38; average hourly wind velocity (2') 11.4 miles, (8') 15.3 miles, evaporation 1.902", precipitation 0.

Dalhart.

The weather has been very warm and dry during the past week and extremely favorable for maturing the crops. Harvest is progressing rapidly and if the weather permits will be completed within the next few days. All of the corn plots have been harvested and the yield vary from three to thirty bushels per acre.

Maximum temperature for the week 88. Minimum 44. Precipitation none.

Garden City.

The weather for the week has been unusually windy and for the most part warm. Sorghum crops are still uninjured by frost, but the grain is practically little more matured now than it was two weeks ago. These crops will probably all be harvested during the coming week as the foliage on most of the plats is drying up.

Field work for the week has consisted principally of work on the fence about the D. L. A. project and harvesting some of the sorghum plats. on the afternoon of the 7th twelve quarts of poisoned oats were put out and the following day sixty dead rabbits were counted.

Maximum temperature for week 93. Minimum temperature 42. No precipitation.

Huntley.

A snow storm Monday made the ground too wet for field work most of the week. Hard frosts every night this week have killed the potato vines and much of the volunteer grain.

Hogs on the corn plat of Rot. 652 made an average grain of 3.2 pounds per day during the first three days. Alfalfa hay is being fed as roughage along with the corn.

Maximum temperature 81. Minimum 22. Precipitation .4".

Judith Basin.

We completed the threshing of the experimental plots and commercial fields on Sept. 22. The winter wheat plots and a forty acre field of winter wheat were seeded Sept. 12-15th. Good stands have been obtained. The corn fodder was harvested Sept. 19th and hauled in Oct. 2nd.

The fall plowing of experimental plots is completed. The field work for the next month will be fall plowing in our commercial fields. This work will be done with the tractor.

Following are yields obtained on the farm this season:-

				Bu.
Spring Wheat	M.C. Series	A	Spring plowed	19.7
		B	Fall plowed	23.0
		C	On fallow	23.3
		E	Subsoiled	20.0
		F	Listed	18.0
Oats	M.C. Series	A	Spring plowed	42.0
		B	Fall plowed	45.0
		C	On fallow	65.0
		E	Subsoiled	42.0
		F	Listed	54.0
Barley	M.C. Series	A	Spring plowed	19.0
		B	Fall plowed	20.5
		C	On fallow	27.5
		E	Subsoiled	20.5
		F	Listed	15.0
Flax	M.C. Series	A	Spring plowed	10.7
		B	Fall plowed	10.5
		C	On fallow	8.6
		E	Subsoiled	10.5
		F	Listed	9.0
Corn Fodder	M.C. Series	A	Spring plowed	2.7 Tons
		B	Fall plowed	3.1
		C	On fallow	2.4
		E	Subsoiled	3.1
		F	Fall listed	2.2
		G	Spring listed	2.1

The highest yield with spring wheat was obtained on Rot. 14, which yielded 31.6 bushels. The highest with oats was on Rot. 8, which yielded 70 bushels. The highest yield with barley was obtained on Rot. 85, which yielded 57 bushels.

Lawton.

The first three days of the past week were quite windy, but the last three days were unusually quiet and rather warm. We have had no rain as yet to put the ground in shape for seeding winter wheat. The grain will be seeded by the middle of the month at least whether we get rain or not.

The working program for the week consisted of plowing, picking cotton and threshing the various sorghum crops. The weather has been very favorable for the opening of the cotton bolls, and two men have been picking constantly.

The following yields of kafir corn were obtained from the MC plats:-

Plat	Pounds of grain per acre.
A	265
B	400
C	495
E	347.5
F	622.5
G	700
H	1035

Kafir corn on Field B yielded about 8.7 bu. per acre.

The following yields of hay were obtained from the sorghum plats in the permanent rotations:-

Plat	Pounds per acre.
MC-A	1300
MC-B	1050
MC-C	1150
MC-E	1500
MC-F	700
MC-G	1000
MC-H	5900
Rot.133 C	4250
Rot.134 C	5100

Mandan.

Most of the available force has been used during the week in pulling seedling trees, which will be used next spring for shelterbelt plantings. Two plows have been kept busy backsetting and plowing garden plats.

The root crops have been harvested and placed in winter storage.

Mr. Peterson returned on the 1st from a trip to the Ottawa Experiment Station, the Arnold Arboretum, Jamaica Plains, Mass., and other eastern points, in search of hardy fruits and other plants for trial and breeding work at this station.

Mr. Pfaender, who accompanied Mr. Peterson on this trip, is expected back on October 9th.

Mr. Cobb returned from the field shelterbelt inspection on the 7th.

Mr. Bastine will return from similar work this week, thus completing the season's inspection work.

Precipitation .24". Maximum temperature 74. Minimum 24.

orth Platte.

The weather has continued dry and warm with considerable high wind. Winter wheat has not germinated perfectly and is making a weak growth. Corn has matured so that there should be but little difficulty in securing good seed.

September weather summary follows:-

	Table	Bench	Normal
Average maximum temperature	76.9	78.4	
" minimum "	47.6	45.4	
" mean "	62.2	61.9	63
First killing frost	9/28	9/15	10/1
Evaporation	5.945	5.602	
Precipitation	1.40	.91	1.82
Hourly wind velocity	6.3	5.0	

heridan.

A light rain occurred last night that has made the roads slippery but has not wet the soil appreciably.

A team has been to the mountains this week and returned with two flag poles, one of which will be put up and the other put in reserve. Poles to put the electric light wires on were also secured. The hay track is being put in the barn, and the track for the litter carrier is also being installed. The corral about the barn is finished.

Work has been progressing rapidly on the residence and it is expected that it will be completed within two weeks. The vault door for the office building has arrived and when installed will make the building complete.

Winter wheat seeded on Sept. 19th has not yet germinated.

oodward.

It was feared the first part of the week, despite all precautions that have been taken against blowing, that a general blow-out would result, as the wind had been blowing at a very high rate for a week straight and had started patches moving. The past three days have been quiet, however, and rye is growing rapidly and will likely get up far enough to hold soil soon.

Farmers are having a hard time to get wheat started as they worked most of the moisture that fell last month out of the top soil in preparing it for wheat. It is safe to say that the station here will appear to better advantage generally than surrounding farms, because the system of cropping on the farms is such that neither of the chief crops, kafir and wheat, can be properly taken care of.

geley.

The weather has been quite cool throughout the entire week, with the exception of Saturday when a light rain occurred. It was quite favorable for field work. All of the fall plowing on the D. L. A. plats has been completed with the exception of two plats to be subsoiled.

Maximum temperature 72. Minimum temperature 23. Precipitation .36 inch.

ote:

There was some delay in the receipt of the pocket notebooks from the Government Printing Office used for original field records. These have, however, now been received and sent out to all stations. The records to be made in next year's books should start with cultivation after harvest. This applies to all plats except those fallowed or green manured this year. On these plats the year's record up to the close of field work should be completed in this year's notebook.

ote:

To facilitate this work and the completion of permanent records it is earnestly requested that the crop rotation sheets from each station be sent in as soon as possible after the last records for the season are secured.

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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE.

OCTOBER 21, 1916.

Reports for the week ending October 14, 1916.

Amarillo.

Beginning Monday night the 9th it set in raining and during the week we have had 2.31 inches of rain, for the most part falling slowly, so that the ground is thoroughly soaked and field work is out of the question until we get some clear dry weather.

Maximum temperature for the week was 85 on the 8th. Minimum 38 on the 9th. 7.7 miles of wind per hour and 2.31 inches precipitation.

Mr. A. E. Cron left for El Paso on Saturday the 7th and Mr. J. P. Ross on the 9th.

Fall tillage and seeding will be delayed because of the wet weather.

Colby.

The week has been cool, windy and cloudy much of the time. There has been no precipitation, however, and the wheat sown almost a month ago is still unsprouted. Practically all the volunteer wheat, which came up after harvest, has died on account of a lack of moisture. In parts of the county, where some of the showers have been sufficient to bring up the wheat, a great deal of reseeding will have to be done when it does rain as there is no moisture to keep the wheat alive. Owing to a scarcity of winter feed cattle are being disposed of at figures much lower than prevailed earlier in the year.

Weather: Maximum temperature 91; minimum 33; average hourly wind velocity (2') 7.9 mi. (8') 10.8 mi.; evaporation 1.106"; precipitation .03".

Dalhart.

Harvesting and threshing has been rather slow during the past week on account of the damp weather that has prevailed. Monday and Saturday were the only two days during the entire week when the weather was dry enough for stacking and threshing. During the remainder of the week light rains and heavy fogs kept the crops and ground wet, and but little field work was accomplished. All of the rotation work has been headed or shocked and a part of it threshed. The corn has all been weighed up, husked and reweighed. All of the crop that remains to be harvested is fifteen plots of late dwarf milo that was planted for stock feed. Practically all of the threshing is yet to be finished, and all of the plots to be fall plowed after corn, milo and kafir are yet to be plowed. This work will require at least a week of favorable weather.

Maximum temperature for the week 87; minimum 36; precipitation .14 inches.

Sgeley.

Clear and cool weather has prevailed throughout the week. Husking corn was begun during the week. With favorable weather the corn should be taken care of this month. Field plowing on Nine was continued throughout the week, and there is still some to be done. Work on the fence around the new land has also been started, and it is hoped to finish it about the middle of this week.

With favorable weather all of the work will probably be cleaned up at this station some time between the 25th of this month and the 1st of November.

Maximum temperature 68; minimum temperature 28; precipitation none.

Hays.

(Report for two weeks ending October 14th.)

It was dry and very windy during the first three or four days of this period. The remainder of the period has been less windy, with frequent changes in wind direction and considerable cloudiness but without rain.

The most important work done during the two weeks is given below as follows:-

Oct. 2nd	and 3rd.	All sorghums headed by hand.
" 4th	" 5th.	All sorghums (Stover) mown or harvested, and preparations for seeding of winter wheat finished.
" 6th	" 7th.	Winter wheat seeded and work of soil sampling resumed.
" 9th.		Soil moisture and nitrate work.
" 10th.		All sorghum heads threshed.
" 11th	" 13th.	Some fall plowing and listing executed.
" 13th.		Mown sorghums raked and bunched.
" 14th.		Soil sampling. Sampling of all winter wheat plats just seeded finished for the last time this fall.

Winter wheat seeded the 6th now coming up on fallow and green manured plats. Wheat will not germinate evenly on account of dry condition of the soil on most plats except fallow.

Rye is thin and spotted in stand on account of lack of moisture.

Huntley.

Corn stubble plats that were to be fall plowed for small grain were plowed this week, and the alfalfa and brome grass plats of Rot. 42 and 41 were backset. These plats had been crowned earlier in the season. Listing was done on the MCF plats of flax, oats and spring wheat. Hogs on the acre corn plat of Rot. 651 cleaned up the crop in nine days and were put in the dry lot on Monday. The plat had an estimated yield of 12.1 bushels. This estimate was determined by gathering the corn on every 100th stalk and weighing the amount thus taken and reducing to bushels per acre. Gains made by the hogs averaged 1.9 pounds per pig per day.

Maximum temperature 74; minimum 26; precipitation trace.

yton.

We have had six days of cool and cloudy weather during the past week. Precipitation was recorded as follows:

Oct.	10th -----	0.22"
"	11th -----	0.07
"	12th -----	0.08
"	13th -----	0.75
"	14th -----	0.10
"	15th -----	0.22
"	16th -----	0.04
	Total	1.48"

These rains have put the surface soil in good shape for the seeding of winter grains. The subsoil, however, is dry, and the need of stock-water has not been relieved to any appreciable extent. Wheat, oats and barley seeded in the rate and date of seeding test are showing a better stand since the rains. Wheat on the rotation plats will be seeded as soon as possible, which will be the 18th in all probability.

Cotton has been practically at a standstill since the cool wet weather has prevailed. With a few days of warm, dry weather the crop will open rapidly, and picking throughout the country will be pretty well finished by the middle of November. Early maturity, ideal weather for picking, and high prices, have resulted in putting the cotton crop on the market much earlier than usual.

andan.

The lifting of nursery stock continued during the week. Some box-elder and ash seed has been picked for next spring's planting.

Mr. Pfaender located a number of thornless bullberries on the Heart River bottoms and collected fruit and plants to be used in the breeding of a thornless variety. Native black raspberries have also been found and plants secured.

Maximum temperature 73; minimum 25; no precipitation.

cottsbluff.

(Report for week ending October 7th.)

I returned from Omaha October 7th. The hog show was excellent throughout, both in number and quality of animals shown. Some 1,525 animals were in the buildings. The Hampshires had the largest representation, which was a bit surprising, with Durocs, Poland Chinas, Chester Whites and Berkshires following in the order named. The Berkshire breeders are real sports. They brought their hogs from as far east as New Jersey and Rhode Island, and from as far west as the State of Washington. Interest seemed to center around the Durocs and Polands.

We have had cold and stormy weather the past week. Considerable snow fell on the 9th. Not enough moisture has fallen, however, to benefit fall seeded crops.

Most all of the corn has been husked. Fall plowing is completed, but there remains three plats to be listed.

odward.

The past week has been cloudy and cool with 1.60 inches of rain in three showers. This has given a fine condition for the winter wheat. Much wheat that has not already been planted about the country will be planted from now on.

During the shower the night of October 14th the lightening struck the barn and implement shed, apparently running around under the shingles and siding and tearing off little patches here and there over a large area. In all, however, the damage was very slight, probably amounting to about $10.

Painting of the implement shed and staining the roof shingles on the house and laboratory is progressing between showers.

There has been no killing frost, as yet, although the date of average first frost is October 15th. This will make three successive years on which the first killing frost has come after the average date.

Bellefourche.

Maximum temperature 74; minimum 29; precipitation .03 inches.

Nearly all of the corn husking on the dry land plats is finished. Practically all of the corn has matured, and there will be a good supply of corn that will be fit for seed. The variety of corn grown on the dry land plats seems to be well adapted to this section of the country, and all surplus seed on the station will be distributed to farmers.

Scottsbluff.

Bad weather interfered with field work this week. Precipitation amounting to .29 inches was the first we have had since August that has done any good. It looks as if winter wheat on the disked corn, M. C. A. and listed plats is not going to come up. Warm weather is needed now, but that is unlikely this late in the season.

Last year I left November 15th. This year I think I can leave on or before November 10th.

Dean Burnett, Chancellor Avery and the Regents, Mr. Pugsley and Mr. Burr, were at the Station on the 13th and 14th.

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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE.

OCTOBER 28, 1916.

Reports for week ending October 21, 1916.

Amarillo.

The first three days of the week hung cloudy - threatening rain. Tuesday came out fair and warm but during the night the wind suddenly changed to the North strong and brought with it the first frost of the season, the mercury dropping from 73 at 5 P. M. Tuesday to 27 by 7 A.M. Wednesday. All day Wednesday a cold North wind prevailed being followed up with another heavy frost during the night. Since then it has cleared off and warmed up some so that work of harvesting row crops has been rushed along as much as possible wherever plats were not too wet. Because of wet land no work was possible on the D. L. A. plats this week but if weather stays clear this will be commenced the first of next week, that is, late fall plowing and the fall seeding.

A new 12-hole Van Brunt drill is now being initiated on the station at fall seeding of Cereal varieties. In the absence of the Superintendent for 3 weeks at Farm Congress at El Paso, the writer is directing the work on the station.

Maximum temperature for the week was 75 on the 17th; minimum 26 on the 20th. Average hourly wind 5.8 miles. Precipitation .02 inch. The freezes of the week did a thorough job of finishing the sorghum crops in this section. Very little of the late growth had matured, especially of the kafirs.

Dalhart.

The first frost of the season occurred Wednesday night when the temperature dropped to 27. This was followed by a hard freeze on Thursday night with a temperature of 17 degrees. All of the plats had been harvested and the most of them weighed up and headed so that no damage has been done to the crops. The heading of the feed crops is being finished up today. The Sudan Grass was threshed and stacked during the week and all that remains of the field work is the threshing and some stacking. Maximum temperature for the week 83; minimum 17.

Edgeley.

Cold, cloudy weather, with high winds, prevailed during the first five days of the week, but the last two days were fairly temperate. Light flurries of snow occurred at times, and on the nineteenth the temperature remained below freezing throughout the day.

Husking corn was continued throughout the week, and the fence around the land on Nine was completed.

Maximum temperature 57.
Minimum temperature 12.
Precipitation, snow, trace.

Lawton.

The past week has been characterized by a sudden drop in the temperature and two heavy frosts-the first for the season. The first killing frost occurred on the night of the 19th., when the minimum temperature dropped to 28. The maximum temperature for the 19th was 48. This cold wave did not last long and warm weather now prevails.

Wheat seeded on the 15th is just emerging today. Alfalfa, sweet clover, and crimson clover seeded on the 4th of September are showing a much better stand since the rains previous to the 16th of this month.

All of the soy beans have been harvested for the seed test. None of the varieties or dates of planting will make a profitable seed crop.

Mr. C. S. Scofield visited the station on the 18th.

North Platte.

The weather has remained dry up to the 19th when several inches of snow fell. This was accompanied by high wind and considerable drifting took place. Very little snow remained on smooth fields. Winter grain in corn stalks will receive some benefit from the moisture.

The minimum thermometer on the bench recorded a temperature of 11.5 degrees on the 20th.

Work of husking and weighing corn yields on the plats was begun on the 19th but has to be discontinued on account of the storm.

Scottsbluff.

Due to bad weather we were unable to harvest corn this week. Snow fell all day the 18th and part of the 19th and the temperature dropped to 17 on those two days.

Winter wheat on five plots has not yet emerged. There is now sufficient moisture in the soil and if the warm weather of today continues, germination may still take place.

Woodward.

Killing frost occurred here the night of the 19th. Since that time all sorghum then standing has been cut.

The latter half of the week has been very cool, and as usual this fall, windy.

If no rain falls it is hoped that practically all threshing will be completed the coming week.

Wheat and rye are in fine vigorous condition.

Cavalier.

The past week has been stormy with a decided drop in temperature. Snow flurries occurred Wednesday and Wednesday night, and the temperature dropped to 16 Thursday night. Very little snow melted Thursday, but the most of it disappeared Friday.

The potatoes were dug the week ending October 14th. Yields were fairly good, the best that we have had since 1912. The highest yield was 144 bu. per acre. While the yields were fairly good on most varieties, many of them were badly shaped. Early Ohio from seed grown at Crookston, Minn., was the best yielding variety.

Maximum temperature for the week 76; minimum 16. Precipitation .47 inches, .25 inch of which fell as snow.

Colby.

The week has been cloudy, windy and wintry. Sunday it misted all day and Wednesday night and Thursday 2.5" of snow fell. All day Thursday the cold north west wind blew a gale, piling the snow on the stubble fields and sweeping clean all the fallow and plowed ground. A hard freeze Wednesday and Thursday nights killed all the leaves of trees and other vegetation that survived the earlier frosts. The moisture will not penetrate more than a few inches and unless rain comes soon may do much damage by bringing up the wheat which will not be able to live long as there is not moisture beneath.

Max. temp. for week 74; minimum 13. Average hourly wind velocity (2') ane. 8.9 miles., (8') ane. 12.6 miles. Evaporation .675 inch, precipitation .39 inch, snow 2.5 inches.

Huntley.

Because of a heavy snow storm Tuesday during which time about 7 inches of snow fell, field work was again brought to a standstill. Repairing fences around the two fields of the D. L. A. project and testing grain was the chief of work of the week.

Mr. Albert Osenbrug, a graduate of the Montana State College, and who has assisted with the dry land work here this season, left Sunday for Archer, Wyoming, where he will have charge of the work of this office for the remainder of the season.

Mr. Geo. Morgan of the Assiniboine Field Station spent Monday here.

Max. temp. for week 78; minimum 13. Precipitation .72 inch.

Mandan.

Most of the force has been employed during the week in digging and heeling in the nursery stock.

All of the potato plantings have been dug, including the variety trial, spacing planting and two rotation plats. All potato varieties yielded well. The highest yield was 276-bu. per acre.

Max. temp. 59; minimum 12. Precipitation .01".

Sheridan.

At last the drouth is broken. On the 18th a snow 6 inches in depth fell and the sod land is wet down about 3 inches. It is raining hard tonight, Oct. 21st., and looks as though it would snow before morning. A team was started to breaking this afternoon, and although the moisture had not penetrated to a depth of 4 inches which is the depth we are breaking, we plowed as deep as possible. There is yet about 50 acres to break, and if frost will keep away during November we will have no breaking to do in the spring.

There is one or two days more of carpenter work on the Residence and it is expected that the contract will be finished by the 28th. Practically all of the electric wiring and the electric fixtures have been finished except in the residence.

The writer was at Archer during the week and closed his work there for this season. The small grain yields were disappointing when compared with the yields from some of the other stations, but the corn yields were a surprise. It was not expected that the corn would mature and if it did that it would yield not over an average of 15 bushels. The average will be close to 25 bushels.